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Getting knotted: umbilical knots in a monochorionic monoamniotic twin pregnancy

T rue umbilical knots occur in about 1% of all pregnancies and are more common with long cords, grandmultiparity, male fetuses, polyhydramnios and monoamniotic twins.¹ Figure 1 shows complex umbilical knotting in a monochorionic monoamniotic twin pregnancy. Delivery was by emergency section at 33 weeks gestation because of fetal distress. Apgar scores were 8 and 6 at one minute and 10 and 9 at five minutes and arterial blood cord pH values were 7.32 and 7.28 respectively.

The single cavity of the monoamniotic twin pregnancy allowed the separate cords to knot around each other. Fetal movements in utero or during the birth process may have increased tension in the knot compromising circulation resulting in fetal distress.¹

It is a major misconception that a knotted cord poses a major threat to the blood supply. Despite the compound appearance of the knots, both twins were born in good condition. Normal Apgar scores² and cord pH values³ are the usual outcome as reported in our case.



Figure 1 Complex umbilical knotting in a monochorionic monoamniotic twin pregnancy.

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